

1 CLAIMS

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3 We claim:

4 1. An uplift resistance device, for use in roof construction to support and tie-down  
5 manufactured valley truss components to supporting structural woods members and  
6 manufactured wood roof truss systems, that can be installed from a position solely above a roof  
7 plane and without cutting holes in plywood attached to standard roof trusses, said device  
8 comprising:

9 a one-piece strap with a wedge formed between a substantially planar base member and a  
10 web member extending upwardly from said base member at an acute angle, said wedge having a  
11 taller end and an opposed tapered end, said taller end being adjacent to said web member, said  
12 base member extending rearwardly beyond said taller end of said wedge; and

13 a plurality of fastener holes formed through said base member and said web member for  
14 time saving construction whereby a manufactured valley truss component can be placed without  
15 beveling modification for roof pitch upon said wedge of said strap and subsequently secured to  
16 said strap by the use of a fastener inserted through each of said fastener holes in said web  
17 member with said strap and manufactured valley truss component combination being attached to  
18 structural woods members and manufactured wood roof truss systems through the use of a  
19 fastener inserted through each of said fastener holes in said base member.

20 2. The device of claim 1 wherein said strap is made from molded construction.

21 3. The device of claim 2 wherein said strap has a solid wedge.

22 4. The device of claim 1 further comprising one additional fastener hole through said  
23 base member in a position under said wedge and wherein the bottommost one of said fasteners

1 holes through said web member is aligned with said additional fastener hole and configured to  
2 allow insertion of a fastener through said wedge.

3 5. The device of claim 1 wherein the one of said fasteners holes through said web  
4 member that is closest in proximity to said base member is laterally centered, and the remaining  
5 ones of said fasteners holes through said web member are not laterally centered.

6 6. The device of claim 1 wherein said base member also extends forwardly beyond said  
7 tapered end of said wedge.

8 7. The device of claim 1 wherein said strap is made from folded construction having a  
9 hollow wedge.

10 8. The device of claim 7 wherein said wedge has opposing sides between said taller end  
11 and said tapered end adapted to provide vertical support for said wedge.

12 9. The device of claim 7 wherein said wedge has open sides and a taller end with a  
13 closed configuration adapted to provide vertical support for said wedge.

14 10. The device of claim 7 wherein said base member has a two-layer construction.

15 11. The device of claim 7 wherein said strap has a rectangular unfolded configuration.

16 12. A method for use in roof construction to support and tie-down manufactured valley  
17 truss components to supporting structural woods members and manufactured wood roof truss  
18 systems and provide uplift resistance from a position solely above a roof plane, without the need  
19 for cutting holes in plywood attached to the manufactured wood roof truss system or beveling  
20 modification of the manufactured valley truss components for roof pitch, said method comprising  
21 the steps of:

22 providing a plurality of one-piece straps each having a wedge with a taller end and an

1 opposed tapered end, a substantially planar base member, a web member extending upwardly  
2 from said base member at an acute angle, and a plurality of fastener holes through said base  
3 member and said web member, said base member extending rearwardly beyond said taller end of  
4 said wedge;

5 providing a plurality of fasteners, manufactured valley truss components, and a  
6 manufactured wood roof truss system;

7 selecting one of said straps for each of said valley truss components intended for direct  
8 attachment to said manufactured wood roof truss system

9 inserting a different one of said fasteners through each one of said fasteners holes in said  
10 web members of said selected straps to attach each said selected strap to a different one of said  
11 valley truss components; and

12 inserting a different one of said fasteners through each one of said fasteners holes in said  
13 base members of said selected straps to attach each said selected strap to a different top chord of  
14 said manufactured wood roof truss system and so that the top surface of each said wedge in one  
15 of said selected straps becomes a supporting surface in contact with the bottom chord of a  
16 different one of said valley truss components.

17 13. The method of claim 12 wherein the bottommost portion of each of said web  
18 members is adapted to function as the taller end of said wedge, and further comprising the steps  
19 of inserting one of said fasteners through said bottommost portion and through said wedge prior  
20 to inserting said same fastener through said base member.

21 14. The method of claim 12 wherein said straps are made from molded construction.

22 15. The method of claim 12 wherein said base member also extends forwardly beyond

1 said tapered end of said wedge and further comprising the steps of inserting one of said fasteners  
2 through said bottommost portion and through said wedge prior to inserting said same fastener  
3 through said base member.

4 16. The method of claim 15 wherein said strap comprises a solid wedge.

5 17. The method of claim 12 wherein said strap is made from folded construction having  
6 a hollow wedge.

7 18. The method of claim 16 wherein said base member has a two-layer construction.

8 19. The method of claim 16 wherein said strap has an unfolded configuration that is  
9 rectangular.

10 20. The method of claim 12 wherein the one of said fasteners holes through said web  
11 member that is closest in proximity to said base member is laterally centered, and the remaining  
12 ones of said fasteners holes through said web member are not laterally centered.